

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Ben Markin

GENERAL INFORMATION:

Name:	CORNING, INCORPORATED
Address:	680 EAST OFFICE STREET, HARRODSBURG, KENTUCKY
Date application received:	7/22/03 & 10/24/04
SIC/Source description:	3211/3229, Glass Lens
Source ID #:	21-167-00004
Source A.I. #:	3143
Activity #:	APE200300001
Permit number:	V-03-052

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input checked="" type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	*Actual (tpy)	Potential (tpy)
PM/PM ₁₀	14.5/13.3	5143/4931
SO ₂	165	165
NO _x	476	476
CO	17.20	17.20
VOC	9.84	9.84
Arsenic	0.011	2.7
Antimony	0.031	3.7
Source wide HAPs	<25	<25

* Actual is based on revised application submitted to the Division on October 24, 2004

SOURCE DESCRIPTION:

An application for a renewal of the Title V Permit, V-98-030 for Corning, Inc., was received on July 22, 2003, and additional information on October 24, 2004. Corning, Inc. has updated its listing for all units at the facility with additions and modifications. The changes include addition of a dry vibrating magnetic filter for sand, alumina, boric acid and calcium carbonate silos and a bag chute-filling system. In addition, two identical 15 mmBtu/hr boilers and ten emergency generators that were not included in the initial Title V application. The throughput for emission unit (EU 04 (tank 133)) has been increased as well as the EU 02 - loading of raw material into the melting furnace.

This source produces ophthalmic glass and advanced display products (ADP). Arsenic is used as a raw material for some of the glass production. All glass melting furnaces are equal to or less than 21 mmBtu/hour.

The facility is classified as a Title V major source of air pollution based on the potential to emit more than 100 tons per year (tpy) of particulate matter less than 10 microns (PM₁₀), total particulate matter (PT), nitrogen oxides (NO_x), sulfur dioxide (SO₂) and for the potential to emit more than 10 tons per year of arsenic and arsenic compounds. However, pursuant to Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass-melting furnace must be conveyed to a control device and reduced by 85 percent. The controlled emission from this processes is 5.1 tons per year.

The following is a list of significant emission units.

- EU 01 Existing Operations for Raw Materials Handling consisting of:
- Machine Point 1 Railcar raw material unloading consisting of two (2) sand silos, one (1) boric acid silo, one (1) alumina silo, one (1) calcium carbonate (CaCO_3) silo, and one railshed vacuum system equipped with building enclosure as control; construction commenced 1966.
- Weigh Station 1 equipped with baghouse; construction commenced 1969.
- Weigh Station 2 equipped with baghouse; construction commenced 1970.
- EU 02 New Operations for Raw Materials Handling consisting of:
- Raw Material Separator equipped with baghouse; construction commenced 1992.
- Day Bin Systems No. 1 equipped with baghouse; construction commenced 1993.
- Day Bin Systems No. 2 equipped with baghouse; construction commenced 1993.
- Mixer No. 1 equipped with baghouse; construction commenced 1992.
- Eirich Mixer equipped with baghouse; construction commenced 1982.
- Primary Cullet Crusher equipped with baghouse; construction commenced 1983.
- Secondary Cullet Crusher equipped with baghouse; construction commenced 1983.
- Loading into ADP Tanks equipped with baghouse enclosure; construction commenced 1989.
- EU 03 Vacuum Systems consisting of:
- Central Vacuum System equipped with baghouse; construction commenced 1981.
- Cullet Crushing Vacuum System equipped with baghouse; construction commenced 1983.
- Melting Vacuum System equipped with baghouse; construction commenced 1983.

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- EU 04 0.5 mmBtu/hr Glass Melting Tank (T133) equipped with baghouse; construction commenced 1986.
- EU 05 6 mmBtu/hr Glass Melting Tank (T138) equipped with baghouse, spray cooler and excess air burner; construction commenced 1993.
- EU 06 6.5 mmBtu/hr Glass Melting Tank (T139) equipped with baghouse, spray cooler and excess air burner; construction commenced 1989.
- EU 07 5 mmBtu/hr Glass Melting Tank (T1310) equipped with baghouse, spray cooler and excess air burner; construction commenced 1989.
- EU 08 5 mmBtu/hr Glass Melting Tank (T1311) equipped with baghouse, spray cooler and excess air burner; construction commenced 1995.
- EU 09 10.5 mmBtu/hr Indirect Heat Exchanger consisting of no control equipment; construction commenced 1987.
- EU 10 21 mmBtu/hr Glass Melting Tank (T135) equipped with baghouse, spray cooler and excess air burner; construction commenced 2000.
- EU 11 10.5 mmBtu/hr Glass Melting Tank (T136) equipped with baghouse, spray cooler and excess air burner; construction commenced 2000.
- EU 12 10.5 mmBtu/hr Glass Melting Tank (T137) equipped with baghouse, spray cooler and excess air burner; construction commenced 1999.
- EU 13 Four (4) Dry Vibratory Magnetic Filters (DVMF) for the silos and one (1) bag chute filling system equipped with central vacuum system (C09) for DVMF for sand and three (3) baghouses (C26) for DVMF for alumina, boric acid and calcium carbonate; construction commenced 2000.
- EU 14 Two (2) identical 15.21 Indirect Heat Exchangers consisting of no control equipment; construction commenced 2000.
- EU 15 Ten (10) Diesel Emergency Generators; constructed between 1979-2000

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

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Source wide hazardous air pollutants (HAP) shall not exceed 10 tons for single HAP, and 25 tons for combined HAPs per any twelve (12) consecutive months

OPERATIONAL FLEXIBILITY:

The following has been established as alternating operating scenarios by the Division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a) 15, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

Each glass-melting tank has the following three (3) operating scenarios:

SCENARIO 1: F Glass

This operating scenario corresponds to total glass production that produces arsenic emissions > 0.4 Mg/yr.

SCENARIO 2: F/G Glass

This operating scenario corresponds to total glass production that produces arsenic emissions < 0.4 Mg/yr.

SCENARIO 3: G Glass

This operating scenario corresponds to production of arsenic free glass.

Pursuant to 40 CFR 61.162(b)(2), uncontrolled total arsenic emission from the glass-melting furnace shall be conveyed to a control device and reduced by 85 percent.

Pursuant to 40 CFR 60.292, emissions of particulate matter shall not exceed 0.5 g/kg (1.0 lb/ton) of glass produced based on a three hours average.

401 KAR 63:020; Potentially hazardous matter or toxic substances, applicable to each affected facility, which emits or may emit potentially hazardous matter or toxic substances. The permittee proposed the usage of raw material, which can generate hydrogen bromide. The alternate operating scenarios submitted by permittee as an attachment to this document dated June 22, 2005 has been established by the Division based on information supplied with the application, during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating.

The permit shield, as provided in Section G, Condition (a) 16, shall extend to each alternate

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operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements. Source wide hazardous air pollutants (HAP) shall not exceed 10 tons for single HAP, and 25 tons for combined HAPs per any twelve (12) consecutive months

Compliance Demonstration Method:

The source is in compliance with 401 KAR 63:020 based on the emission rates of toxics given in the application submitted by the source. If the source alters process rates, material formulations, or any other factor that would result in an increase of toxic emissions or the addition of toxic emissions not previously evaluated by the Division, the source shall submit the appropriate application forms pursuant to 401 KAR 52:020, Section 3(1)(a), along with modeling to show that the facility will remain in compliance with 401 KAR 63:020.